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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MOORE, KARLA A	
ART UNIT	PAPER NUMBER
1763	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/829,018	LEE, KYU OK	
	Examiner	Art Unit	
	Karla Moore	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Regarding claims 1-4, the phrase "etc." renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "etc."), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,700,127 to Harada et al. in view of U.S. Patent No. 6,082,951 to Nering et al.

7. Harada et al. disclose a wafer carrier locking device substantially as claimed and comprising: a wafer carrier (Figures 1-2, 5-8 and 10; 6) with a plurality of wafers seated thereon; a main equipment (3) to execute a semiconductor manufacturing process when the wafers seated on the wafer carrier are fed to the main equipment by a multi-joint robot (4; column 5, rows 37-39); an auxiliary equipment, comprising a carrier sensor (7, 60) to detect a seated state of the wafer relative to a base member; a wafer sensor (18) to detect a number and positions of the wafer seated on the wafer carrier relative to a base member; and a base member having a plate shape (column 4, rows 34-37); and a locking unit (50) provided at a front portion of the base member to prevent the wafer carrier from undesirably moved, when the wafer carrier is seated on the base member during the semiconductor manufacturing process of the main equipment.

8. However, Harada et al. fail to disclose a plurality of positioning blocks being provided at predetermined positions of the base member to allow the wafer carrier to be seated at a desired position on the base member.

9. Nering et al. disclose the use of a plurality of positioning elements provided at predetermined positions of a base member for the purpose of receiving, aligning and supporting a wafer carrier as required by SEMI standards (column 4, rows 44-53).

10. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided a plurality of positioning elements in Harada et al. in order

to receive, align and support the wafer carrier as required by SEMI standards as taught by Nering et al.

11. With respect to claim 2, the locking unit of Harada et al. comprises: a control board (8) capable of outputting a locking signal when a start signal of the main equipment is input to the control board through the auxiliary equipment, and to output an unlocking signal when an end signal of the main equipment is input to the control board through the auxiliary equipment, during the semiconductor manufacturing equipment; and a solenoid valve (Figures 6, 7A and 7B; 54) capable of driving an actuating unit (52 and 53) in response to the locking signal or unlocking signal when the locking signal or unlocking signal is input from the control board to the solenoid valve; an actuator (53) capable of extending to or retracting according to the solenoid valve; and a hooker (52) mounted to and end of the cylinder actuator capable of locking or unlocking the wafer carrier seated on the base member, according to the extending or retracting motion of the actuator.

12. However, Harada et al. fail to disclose the solenoid valve as an air solenoid valve and the actuator as a cylinder actuator.

13. Nering et al. teach the use of a pneumatic locking/latching mechanism (or other appropriate gas or electric actuators) at a pod loading station for the purpose of attaching two structures (column 5, rows 14-41).

14. It would have been obvious to one of ordinary skill in the art to use a pneumatic locking/latching mechanism in Harada et al. in order to attach two structure of a pod loading station as taught by Nering et al.

15. Examiner further notes, with respect to claim 2, that the courts have ruled that an express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious. In re Fout, 675 F.2d 297, 213 USPQ 532 (CCPA 1982).

16. With respect to claim 3, the courts have also ruled that the mere duplication of parts has no patentable significance unless a new and unexpected result is produced. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). It would have been obvious to one of ordinary skill in the art that providing additional locking units would serve to provide a more securely seated carrier, this would by no means be a new and/or unexpected result.

17. With respect to claim 4, as viewed in Figure 6, the locking mechanism has an L-shape. Further, Examiner notes, with respect to the shape (i.e. L-shaped) of the locking mechanism, the courts have held that selections of shape are a matter of choice which a person of ordinary skill in the art will find obvious absent persuasive evidence that the particular configuration of the claimed shape was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). It would have been obvious to one of ordinary skill in the art that a shape capable of holding the carrier in place must be chosen. An L-shaped locking unit would undoubtedly and obviously be capable of holding the carrier in place.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karla Moore
Primary Examiner
Art Unit 1763
19 June 2006